

**Abstract**

The present invention relates to an apparatus for the discrete and registered placement of chemistry. The apparatus having (i) at least one solenoid valve, the valve including an orifice; (ii) at least one chemistry source, the at least one chemistry source being in communication with the at least one valve, and being capable of communicating at least one chemistry to at least one solenoid valve; and (iii) a heating element; wherein the heating element is positioned proximate to at least one chemistry, and wherein the heating element allows the apparatus to process phase-change materials. A second embodiment of the present invention is directed to an ink-jet printing device for the registered placement of phase-change liquids. The present invention is also directed to a method for placing one or more chemistries in a discrete and registered fashion.

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